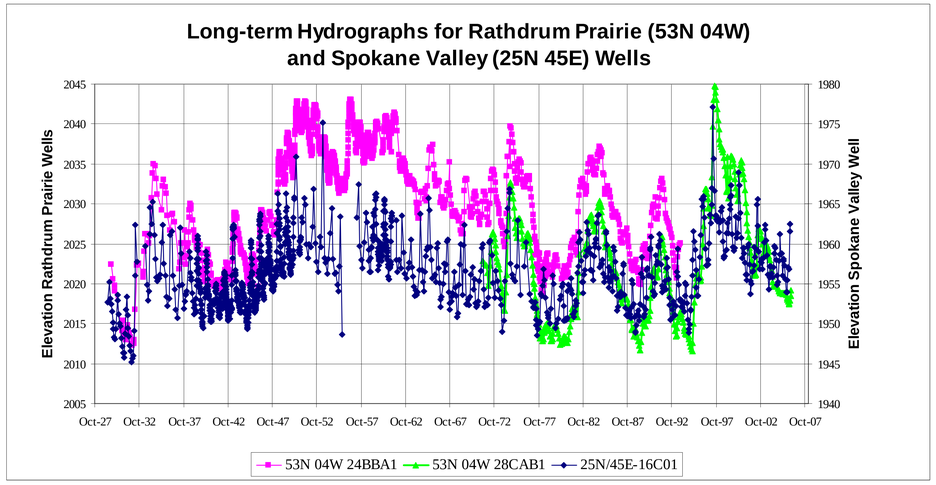
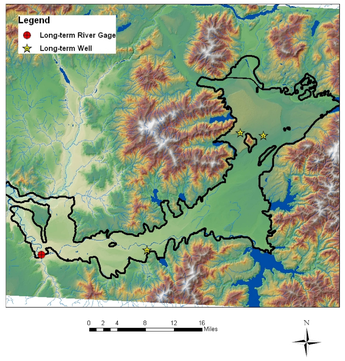
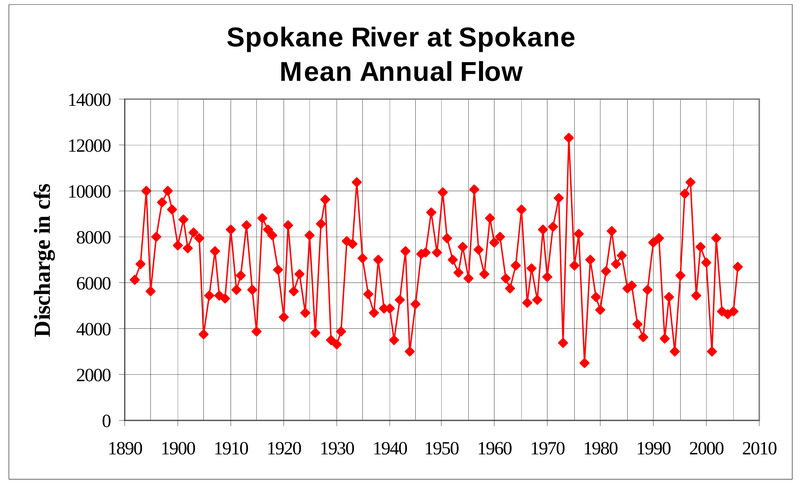
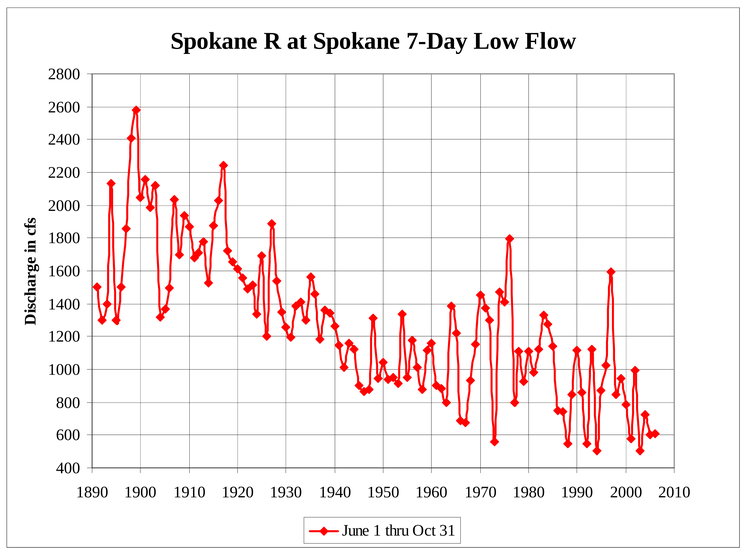
Long-term Trends in the Aquifer and River



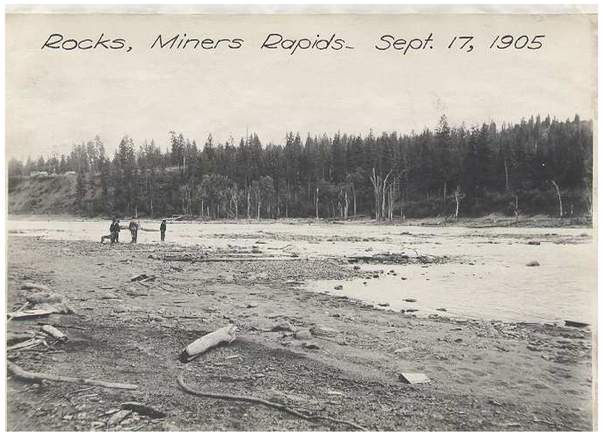




On an annual basis, the flow in the River doesn't exhibit any significant long-term changes.

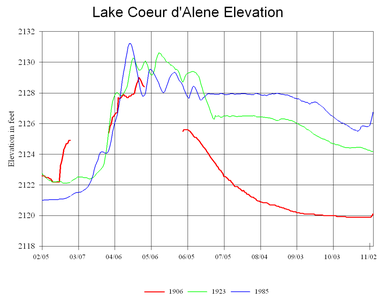


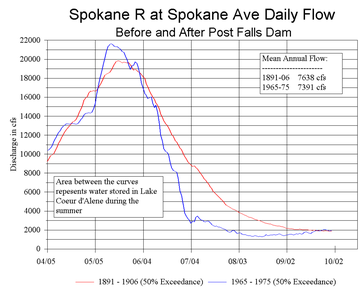
Prior to the Post Falls Dam, Lake Coeur d'Alene used to drain all summer, with Spokane River flows being hihger than under 'current' conditions



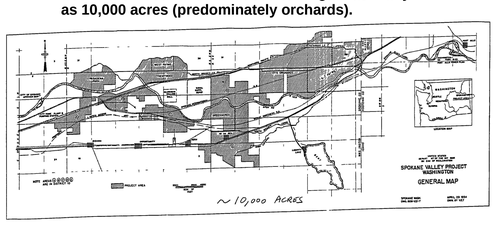
Spokane River below Lake Coeur d'Alene in the summer of 1905. Lake elevation for 9/17/1905 = 2120'

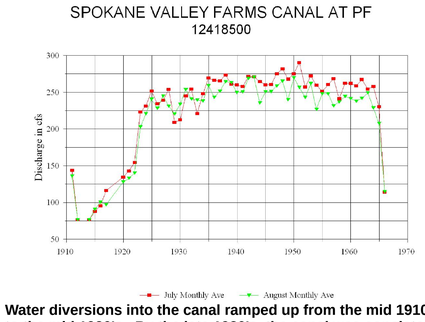
Post Falls Dam changed the seasonal hydrograph for both Lake Coeur d'Alene and the Spokane River



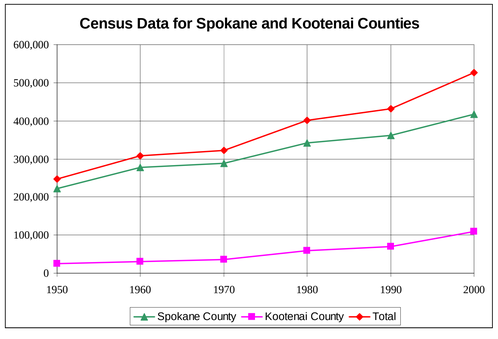


An irrigation canal coming out of the Spokane River above the Post Falls Dam used to irrigate as many as 10,000 acres (predominately orchards).





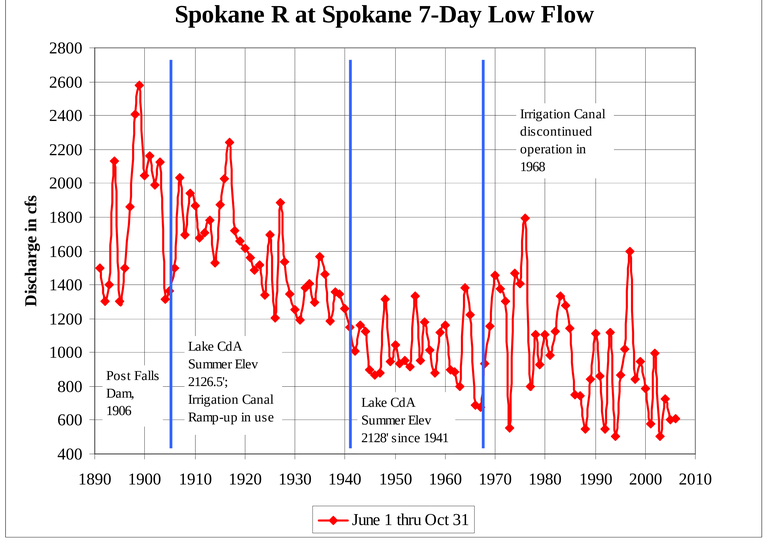
Water diversions into the canal ramped up from the mid 1910's to the mid 1930's. By the late 1930's, the canal was consistently diverting 250+ cfs out of the river in the summer months.



Historical census data indicates that the area's population doubled between the 1950 and 2000 Censuses.

The Spokane Valley with its miles of fruit trees made possible by irrigation.

As the area's population grew, orchards gave way to subdivisions.



The Water Table in both the Rathdrum Prairie and Spokane Valley has not demonstrated any long-term trend other than the cyclic nature of precipitation (no long-term mining).

The long-term trend for the summer low-flow in the Spokane River has been consistently downward over the decades. Much of this decline can be attributed to specific changes within the watershed, the remainder is related to increasing water use.

The hydrologic system's response to changes in water use seems to be more easily observed in the river's low flow data than in aquifer head data.

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